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AMSAT NEWS SERVICE
ANS-168

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-168 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 168.01
  From AMSAT HQ KENSINGTON, MD.
DATE June 17, 2018
To All RADIO AMATEURS
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AMSAT Field Day on the Satellites

It’s that time of year again; summer and Field Day! Each year the American Radio Relay League (ARRL) sponsors Field Day as a “picnic, a campout, practice for emergencies, an informal contest and, most of all, FUN!”

The event takes place during a 23-hour period on the fourth weekend of June. For 2018 the event takes place during a 27-hour period from 1800 UTC on Saturday, June 23, 2018 through 2100 UTC on Sunday, June 24, 2018.

Those who set up prior to 1800 UTC on June 23 can operate only 24 hours. The Radio Amateur Satellite Corporation (AMSAT) promotes its own version of Field Day for operation via the amateur satellites, held concurrently with the ARRL event.

This year should be easier than many years since we have more than 10 transponders and repeaters available. Users should check the AMSAT status page at http://www.amsat.org/status/ and the pages at http://www.amsat.org/?page_id=177 for what is available in the weeks leading up to field day.

To reduce the amount of time to research each satellite, see the current FM satellite table at http://www.amsat.org/?page_id=5012 and the current linear satellite table at http://www.amsat.org/?page_id=5033

If you are considering ONLY the FM voice satellites, there are SO-50, AO-85, AO-91, and AO-92. It might be easier this year to make that one FM contact for the ARRL bonus points with so many FM birds. The congestion on FM LEO satellites is always so intense that we must continue to limit their use to one-QSO-per-FM-satellite. This includes the International Space Station. You will be allowed one QSO if the ISS is operating Voice.

AO-92 may be in L/v for the first part of the event, depending on command station availability. Keep an eye on @AMSAT on Twitter for expected L/v mode change times.

The full set of rules are posted at: https://www.amsat.org/field-day/

[ANS thanks AMSAT Director Contests and Awards, Bruce Paige, KK5DO, for the above information]

CAMSAT Details on Three Satellites and an HF Transponder

CAMSAT, China's Amateur Radio Satellite organization, has offered additional details about the three Amateur Radio satellites it plans to launch later this year. Two of the satellites, designated CAS-5A and CAS-6, will carry transponders, and one of them will offer HF capability. CAMSAT's Alan Kung, BA1DU, told ARRL that the 6U CAS-5A will carry two HF transponders and two V/UHF transponders. The plentiful equipment package includes an H/T (21/29 MHz) mode linear transponder, an H/U (21/435 MHz) mode linear transponder, an HF CW telemetry beacon, a V/U linear transponder, a V/U FM transponder, a UHF CW telemetry beacon, and UHF AX.25 4.8k/9.6k baud GMSK telemetry.

+ The H/T mode linear transponder will have a 30 kHz wide uplink centered on 21.400 MHz, and a downlink centered on 29.490 MHz. RF output is 0.5 W.

+ An HF CW telemetry beacon will transmit on 29.465 MHz with 0.1 W.

+ The H/U mode linear transponder will have a 15 kHz wide uplink centered on 21.435 MHz, and a downlink centered on 435.505 MHz. The RF output is 0.5 W.

+ The V/U mode linear transponder will have a 30 kHz wide uplink at 145.820 MHz, and a downlink at 435.540 MHz. The RF output is 0.5 W.

+ The V/U mode FM transponder will uplink at 145.925 MHz, and downlink at 435.600 MHz. The transponder passband is 15 kHz, and the RF output is 0.5 W.

+ The UHF CW telemetry beacon will transmit on 435.570 MHz, with an RF output of 0.1 W.

+ UHF AX.25 4.8k/9.6k baud GMSK telemetry will transmit on 435.650 MHz at 0.5 W.

Kung told ARRL that the HF, VHF, and UHF antennas are quarter-wave monopoles.

A satellite within a satellite, the tiny CAS-5B, weighing 0.5 kilogram, will be deployed from CAS-5A in orbit. It will carry a UHF CW beacon on an Amateur Radio frequency. Both CAS-5A and CAS-5B will be placed into 539 × 533 kilometer, 97.5° orbits. They will launch from the Jiuquan Satellite Launch Center in late September.

The 50-kilogram CAS-6 microsat will include a VHF CW telemetry beacon, a U/V mode 20 kHz linear Amateur Radio transponder, and AX.25 4.8k baud GMSK telemetry. It will also carry an atmospheric wind detector and other systems that will operate on non-amateur frequencies.

A launch at sea on an as-yet undetermined date is planned for CAS-6 from the China Academy of Launch Vehicle Technology. The microsat will be placed into a 579 × 579 kilometer, 45° orbit.

[ANS thanks ARRL for the above information]

3A Monaco Activation on FM Satellites in July

F4DXV plans FM satellite operation from 3A Monaco (JN33) on Monday 02 July ~08:30z to 13z only during a quick break from his trip to Italy. Jerome says, "Due to a bad horizon (mountains, buildings), I could be only QRV for EU on high FM orbits."

[ANS thanks Daily DX for the above information]

ARISS Ham Video Transmitter Aboard ISS Defective

Gaston Bertels, ON4WF has provided an update regarding the condition of the ARISS HamTV system aboard the ISS.

In mid-April, the Ham Video transmitter on board the Columbus module of the ISS stopped working. Extensive testing was performed by the crew on June 1, 2018 which comprised connecting the transmitter to the second ARISS L/S-band patch antenna on the nadir of Columbus. The test was negative. Ground stations did not receive any signal from Ham Video.

Since on-board repair is impossible ARISS is planning to return the transmitter to Earth. Bertels wrote, "We hope this plan will be accepted by the space agencies and the cost of operations funded by sponsors. Schools and crew members performing educational ARISS school contacts are delighted to use Ham Video. We will do the best we can to restart this service as soon as possible. We will keep you informed on progress."

Additional information about the HamTV project can be found on-line at: https://www.amsat-on.be/

[ANS thanks Gaston Bertels, ON4WF and ARISS HamTV for the above information]

Call for Volunteers, ANS Seeks Rotating Editors

The AMSAT News Service (ANS) is seeking volunteers to serve as rotating editors for its weekly newsletter.

Editors work on a rotating schedule, each taking a different turn editing a specific week's newsletter as scheduled by the ANS Editor in Chief. Editors support each other by seeking and reporting to the Editor of the week, information and resources of interest to the AMSAT community. The number of newsletters assigned will be dependent upon the number of available editors at any given time. The average editor can expect to spend, on average, 4-5 hours for each newsletter, dependent on available material. Prospective editors are required to be AMSAT members in good standing and have a genuine interest in satellite operation and an understanding of AMSAT's mission. Former editing experience is a plus but not required.

If interested, please submit an inquiry, including your contact information to ans-editor(a)amsat.com.

[ANS thanks the ANS editors for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
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